## **Adopted Levels**

Type Author Citation Literature Cutoff Date
Full Evaluation C. Morse NDS 189,111 (2023) 23-Sep-2022

 $S(p)=1025 \ syst; \ Q(\alpha)=9469 \ syst$  2021Wa16

 $\Delta S(p)=283$ ,  $\Delta Q(\alpha)=288$  (2021Wa16).

 $S(2p)=3929 \text{ SY } 259, \ Q(\varepsilon p)=2142 \text{ SY } 220 \ (2021Wa16).$ 

2022Hu21: First observation of the nucleus <sup>251</sup>Lr. The experiment was performed using AGFA at Argonne National Laboratory using the <sup>203</sup>Tl(<sup>50</sup>Ti,2n) reaction at a beam energy of 237 MeV. <sup>251</sup>Lr was identified based on spatial and temporal correlations between evaporation residues detected at the focal plane of AGFA and subsequent α-decays linking <sup>251</sup>Lr with known decays of the daughter nuclei.

## <sup>251</sup>Lr Levels

E(level)	$\mathrm{J}^\pi$	$T_{1/2}$	Comments
0	(7/2-)	24.4 ms +70-45	% $\alpha$ ≈100 configuration= $\pi$ 7/2 <sup>-</sup> [514] (2022Hu21) % $\alpha$ : Only $\alpha$ decay has been observed.
117 27	(1/2-)	42 ms +42-14	%α≈100 configuration= $\pi$ 1/2 <sup>-</sup> [521] (2022Hu21) %α: Only α decay has been observed.